UNITED STATES DEPARTMENT OF AGRICULTURE
Agriculture Research Service
Washington 25, D. C.

PRESERVING THE COLOR OF FLOWERS

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The U. S. Department of Agriculture has at present no information regarding an entirely satisfactory method of preserving the natural color and shape of flowers, either dry or in a liquid. Two methods with several modifications of each that were used at present are described in the following paragraphs.

IN WAX

A. Paraffine or Parowax is melted in a double-boiler over a gas or oil burner and the heat then turned down so as to keep the paraffine just above the melting point, as a high temperature would often injure the flowers. Carefully plunge a flowering stalk into the paraffine for a few seconds, giving the stem a twisting motion between the fingers to help eliminate air bubbles. Then withdraw the flowers and hold a few seconds until partially dry before laying down. A second or third dipping can be made if the flower is not entirely coated.

B. Paraffine heated in a water bath can be sprayed on flowers by an atomizer such as is used in sealing bandages in hospitals.

C. Place a dish of gasoline in a larger dish of boiling hot water out-of-doors and away from any flame that could cause an explosion. Cut paraffine shavings into the heated gasoline at the rate of one-half pound of paraffine to a quart of gasoline and spray the wax solution onto the flowers with an atomizer or with an artist's atomizer for spraying fixative. Also the artist's fixative solution, obtainable at art stores, can be sprayed on flowers with good results. If the colors of the flowers in wax eventually fade, the wax coating can be colored with natural color with water-color paints.

IN SOLUTION

A very large number of liquid formulae for preserving the color of flowers, foliage, and fruits have been proposed. In the case of fruits and vegetables this often involves a slightly different formula for each type or color of material. From among those for general use three have been selected as follows:

Immerse plants in a solution of, water 1 quart, glycerine 4 ounces, lactic acid 2 ounces, carbolic acid 2 ounces, copper acetate 6 drams, copper chlorate 6 drams. Green foliage at first turns brownish to yellowish, but after 8 or 10 days it recovers a green color very near the original. When the desired color is reached turn off this liquid and substitute, water 1 quart, glycerine 2 ounces, lactic acid 1 ounce, formalin 1 ounce.

B. Alum 500 grains, salt 125 grains, saltpetre 60 grains, potassium nitrate 300 grains, arsenic trioxide 100 grains, Dissolve in 1 quart of boiling water, cool and filter. For every quart of solution add 4 quarts of glycerine and 1 quart of alcohol (Ethyl). Immerse the objects to be preserved in this solution and keep them in it for a week or 10 days. Some plants are best kept in the solution, but when taken out, drain and wash off with warm water and dry in the shade.

C. For preserving the Indian Pipe, wash well in cold water and puncture the stem and flower at intervals with a fine needle. Immerse in boiling water and remove immediately. Place in 95 percent alcohol to which has been added 10 percent by volume of concentrated hydrochloric acid. In a few days the solution turns to a ruby hue from dissolved pigment. Two or three changes of this fluid at intervals will remove all color and the specimen can remain in the final solution.

PRESERVING FLOWERS AND FOLIAGE IN SAND

Use a fine white sand such as is used for making glass or similar sand used in the bottoms of aquaria and obtainable from dealers in aquarium supplies. Similar fine white beach sand contains some salt and would not give good results.

Obtain a stout carboard box large enough to hold the specimens and 4 to 6 inches deep with a cover. Cut out all but a 3/4-inch margin of the bottom of the box and fit inside the box a piece of $\frac{1}{2}$ - inch mesh galvanized wire. Set the box into the cover and cover the wire-screened bottom of the box with one inch of sand. Lay the specimens on the sand and slowly sift sand over them until they are covered. During the sifting use a teaspoon to carefully flip some of the sand into each flower as the sand reaches each flower level. At least a $\frac{1}{2}$-inch layer of sand should cover the upper part of the specimens.

If the sand is thoroughly dry at the start all but very fleshy specimens should be well dried in from 2 to 3 weeks. To remove specimens from the sand lift the box out of the cover and let the sand run out through the wire screen bottom without injury. The specimens can be set in vases or holes made in a 3/4 to 1-inch board to stand the stems in. The board stands can be made of various sizes and shapes and painted and thus a small indoor flower garden is made for winter decoration.

Most flower and leaf colors except colored autumn foliage will mostly fade out in from three to six months exposure to light of the average room and no process is now known for preserving their colors for a longer period in the dry state.